

Listing of Claims:

1. (Previously Presented) An apparatus for pumping fluid comprising:

a housing having an exterior surface and an interior surface, the interior surface defining a cylindrical chamber having a first end wall and a second end wall, the second end wall having a plunger opening through which a plunger is reciprocal in the chamber to cause fluid to enter the chamber through a fluid inlet opening and to discharge fluid from the chamber through a fluid discharge opening,

wherein the housing has an integrally formed cavity recessed into its exterior surface to provide a transducer surface which is radially spaced from the interior surface of the housing and which is disposed between said first and second end walls, and wherein a strain sensor is affixed to the transducer surface to measure deformation of the housing resulting from differences in fluid pressure within the chamber, the strain sensor producing a first signal indicative of the transducer surface assuming a first position when the chamber is at low pressure and producing a second signal indicative of the transducer surface assuming a second position when the chamber is at high pressure.

2. (Previously Presented) The apparatus of claim 1 wherein the transducer surface is a flat bottom surface of cavity.

3. (Original) The apparatus of claim 1 wherein said housing has a composition selected from the metals and metal alloys consisting of titanium, aluminum, and vanadium.

4. (Previously Presented) The apparatus of claim 1 wherein said housing has a composition comprising metal alloy 6A14V.

5. (Original) The apparatus of claim 1 wherein said exterior surface of said housing has a cylindrical portion and a half cylindrical portion, said cylindrical portion forming a base for attachment to other apparatus, said half cylindrical portion having a flat planar surface and a half cylindrical surface.

6-9. (Canceled)

10. (Previously Presented) A method of measuring pressure in a pump chamber comprising the steps of providing a housing according to claim 1 and taking readings of the strain gauge as an indication of pressure in said chamber.

11. (Previously Presented) The apparatus of claim 5, wherein the transducer surface is radially spaced from the axis of reciprocation of the plunger.

12. (Previously Presented) The apparatus of claim 5, wherein the transducer surface is arranged substantially parallel to the axis of reciprocation of the plunger.

13. (Previously Presented) The apparatus claim 1, wherein the half cylindrical portion and the cylindrical portion are integral.